

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A catalyst producing method comprising:

preparing reverse micellar solution including an aqueous solution containing at least a noble metal element as a catalytic active component, and carrying the catalytic active component by a substrate to establish them into a catalyst precursor; and

spraying the emulsion solution containing the catalyst precursor in an inert gas atmosphere to obtain a dried catalyst precursor, and firing the obtained dried catalyst precursor in an air atmosphere.

2. (Original) The catalyst producing method as claimed in claim 1, wherein a molar ratio (RW) of water encapsulated in the reverse micelle relative to a surfactant forming the reverse micelle is 20 or less.

3. (Currently amended) The catalyst producing method as claimed in claim 1 ~~or 2~~, wherein the catalytic active component further includes at least one of a transition metal element and a rare earth element.

4. (Original) The catalyst producing method as claimed in claim 1, wherein the carrying comprises:

preparing a solution including a solvent containing a dispersed powder of oxide forming the substrate; and

mixing the prepared solution and the emulsion solution to carry the catalytic active component by the substrate to thereby establish them into the catalyst precursor.

5. (Original) The catalyst producing method as claimed in claim 1, wherein the carrying comprises:

preparing a hydroxide to be matured into an oxide forming the substrate; and
clathrating the catalytic active component contained in the reverse micelle contained
in the emulsion solution by the prepared hydroxide to carry the catalytic active component by
the substrate to thereby establish them into the catalyst precursor.

6. (Original) The catalyst producing method as claimed in claim 1, wherein the noble metal
element comprises at least one noble metal element selected from Ru, Rh, Pd, Ag, Ir, Pt, and
Au.

7. (Original) The catalyst producing method as claimed in claim 2, wherein the transition
metal element comprises at least one transition metal element selected from Mn, Fe, Co, Ni,
Cu, and Zn.

8. (Original) The catalyst producing method as claimed in claim 2, wherein the rare earth
element comprises at least one of La and Ce.

9. (Currently amended) A catalyst obtained by the catalyst producing method according
to ~~any one of claims~~ claim 1 through 8.

10. (Original) A catalyst obtained by:

preparing reverse micellar solution including an aqueous solution containing at least a
noble metal element as a catalytic active component, and carrying the catalytic active
component by a substrate to establish them into a catalyst precursor; and

spraying the emulsion solution containing the catalyst precursor in an inert gas
atmosphere to obtain a dried catalyst precursor, and firing the obtained dried catalyst
precursor in an air atmosphere.